

Special Provisions & Construction Notes

Presented by : Joe DeGroat
WSDOT

Fall / Winter 2004

SPECIAL PROVISIONS

Order of precedence

- Standard Specifications section 1-04.2 lists the order of precedence for various parts of a contract
 - 1) Addenda
 - 2) Proposal Form
 - 3) Special Provisions
 - 4) Contract Plans
 - 5) Amendments to the Standard Specifications
 - 6) Standard Specifications
 - 7) Standard Plans

Observations

- Conflict resolution
- Importance
- How they can be used

Proper Use

- Should normally be used only to:
 - Supplement
 - Modify
 - Or Replace

Material in the Standard Specifications or
Amendments to the Standard Specifications

- Do not use the Special Provisions to repeat information from the Standard Specifications or other parts of the contract

Organization

Special Provisions need to be organized in the same fashion as the Standard Specifications. The categories of the Special Provisions are:

- Description
- Materials
- Construction Requirements
- Measurement
- Payment

Why Organize in this fashion?

- Since we are supplementing, modifying, or replacing portions of the Standard Specs it makes sense that we organize the provisions in the same fashion.
- Requires the designer and inspector to become familiar with the Standard Specifications
- Helps encourage respect for the Standard Specifications.
- Helps avoid repetition of material in the Standard Specifications.

Why organize in this fashion? - continued

- Makes it easier for the contractor and inspector to see what's different on each job
- Presents information in a consistent format
- Designer will know when they are changing a requirement from the Standard Specs or Amendments

Types of Special Provisions

- Headquarters General Special Provisions (GSP's)
- Regional Specifications
 - Two Types of Regional Specs
 - Canned (Also called Regional GSP's by some)
 - Job Specific

HQ General Special Provisions

- Maintained by the State Construction Office at HQ in Olympia
- Run list coding ends in a .GR8
- Cannot be modified by the Region unless the .GR8 designation is removed (this is only done in rare cases)

Regional Special Provisions

- Prepared at the Region level
- Use needs to be coordinated with the GSP's and Amendments to the Standard Specifications

Regional Special Provisions - continued

- Canned Regional Specs:
 - Don't have to reinvent the wheel for each job
 - Helps make sure the necessary language gets into the contract
 - Gives designers a good starting point
 - Helps increase consistency
 - May help create a framework for discussion among those affected by the provisions

Regional Special Provisions - continued

- Canned Regional Specs:
 - Should only be viewed as a starting point as it is not possible to create a set of special provisions which covers every possible situation
 - NWR maintains a set of Canned Regional specs which are available on our homepage at <http://www.wsdot.wa.gov/regions/northwest/traffic/electricaldesign/default.htm>

Regional Special Provisions - continued

- Canned Regional Specs
 - Only use the applicable specs on each job and modify when appropriate to create Job Specific provisions
 - Do not rely on an index description – read the specs before you use them
 - Specs may have been modified, make sure you are aware of any changes

Regional Special Provisions - continued

- If Canned Regional Specs are maintained a run list is typically used so that the specs can be called out in the same fashion as the GSP's. The Run list coding for the Region specs must end in something other than .GR8 (NW Region uses .DT1 for English Provisions and .DM1 for Metric Provisions)

Regional Fill In Specs

- Serve as a canned placeholder for job specific information
 - Don't use unless it's applicable & necessary
 - NWR maintains a Description Fill In, however on most jobs section 8-20.1 of the Standard Specifications is adequate

Standard Specification

8-20 ILLUMINATION, TRAFFIC SIGNAL SYSTEMS, AND ELECTRICAL

8-20.1 Description

This work shall consist of furnishing, installing and field testing all materials and equipment necessary to complete in place, fully functional system(s) of any or all of the following, types including modifications to an existing system all in accordance with approved methods, the Plans, the Special Provisions and these Specifications:

1. Traffic Signal System
2. Illumination System
3. Traffic Data Accumulation and Ramp Metering System

Unless otherwise noted, the location of signals, controllers, standards, and appurtenances shown in the Plans are approximate; and the exact location will be established by the Engineer in the field.

Beyond the Canned Specs

- Remember that additional special provisions may be needed to address job specific requirements

CONSTRUCTION NOTES

Purpose

- Picture says 1000 words but sometimes we need to add a few
- Reference applicable information or requirements
- Indicate what work is to be done at specific locations

Purpose - continued

- May also be used to convey how we will or will not let the work be accomplished, how the work will be paid for, what kind of materials can be used, or to identify work that will be done by someone other than the contractor

Should it be a note?

- Make the construction notes concise and to the point, there's only so much room on the plans, remember we can also use the special provisions, so ask yourself if it should really be on the plans or elsewhere?
- Remember, crowded plans can overwhelm users

Canned Notes

- NW Region maintains a set of canned construction notes for use as a starting point, which can be found on our Home Page
- Benefits of maintaining canned special provisions are also applicable for canned construction notes

Beyond the Canned Notes

- Additional construction notes may be needed to address job specific requirements

Preparation of Special Provisions & Construction Notes

Payment Specs

- Section 8-20.5 has some catch all payment wording which covers our electrical work in most situations. If you use a non standard bid item this wording will not apply, unless you make it applicable in your job specific payment specification.

Payment Specs - continued

- GEPAY.DT1
- **(NWR December 16, 2002)**
- **Payment**
- Section 8-20.5 is revised to read:
-
- Payment will be made in accordance with Section 1-04.1, for each of the following bid items that are included in the proposal:
-
- “Illumination System _____”, lump sum.
- “Traffic Signal Display and Detection System _____”, lump sum.
- “Traffic Signal Control System _____”, lump sum.
- “Traffic Data Accumulation and Ramp Metering System_____”, lump sum.
- The lump sum contract price for “Illumination System _____”, “Traffic Signal Display and Detection System _____”, “Traffic Signal Control System _____”, “Traffic Data Accumulation and Ramp Metering System_____”, shall be full pay for the construction of the complete electrical system, modifying existing systems, or both, as shown in the Plans and herein specified including excavation, backfilling, concrete foundations, conduit, wiring, restoring facilities destroyed or damaged during construction, salvaging existing materials, and for making all required tests. All additional materials and labor, not shown in the Plans or called for herein and which are required to complete the electrical system, shall be included in the lump sum contract price.

Payment Specs - continued

- As an example, with the old payment specification, if you wanted to combine the signal and illumination work into one bid item the provision could be written as follows: “Section 8-20.5 is supplemented with the following: The lump sum contract price for “Electrical System SUA 948” shall be full pay for all work, as described in this section, on the associated signal and illumination systems powered by service SUA 948.”

Proprietary Products

- If our provisions allow less than three manufacturer's for a given product, the product is considered proprietary and approval is required
- In general its a good idea to avoid using proprietary products but don't hesitate to use them if there is a good reason

Proprietary Products - continued

- If you plan on using a proprietary product, make sure to request approval early in the process so you have time to come up with another plan if approval isn't granted
- Don't use a proprietary product just to make it easier to write the specification

Proprietary Products - continued

- Avoid using the term “or equal”. This term is frequently used to avoid having to get proprietary approval, however the or equal leaves us hanging out in the air. This term often ends up confusing the construction office and really doesn’t put much constraint on the contractor. We never know what we are going to get when this term is used.

Catalogue Cut's

- In most cases don't copy catalogue cut's verbatim into your specs. These often aren't written properly for use in our specials and we may not want to adopt all of the material requirements.

Common Considerations

- Since special provisions and construction notes are used for a similar purpose, many of the same considerations come into play in their preparation

Remember the “big” picture

- The contract should result in economical construction of an electrical project, which is maintenance friendly and to the greatest possible extent facilitates safe, efficient, and economical travel on our State highways

Remember the “big” picture

Continued

- Field Verification/Actual site conditions
- Understand overall project
- Find out about future work in the area
- Make sure you have the necessary information (speed studies, survey, traffic volumes, accident data, etc.)
- Know the current design standards

Remember the “big” picture

Continued

- Coordinate with other designers as the project is developed
- Determine if there are any special considerations which need to be taken into account
- Keep cost in mind
- Use available resources and get feedback
- Don't hesitate to ask questions
- Decide what needs to be constructed

Once you know what needs to be done

- You are half way there, the next step is to clearly and unequivocally communicate your intent

Who reads this anyway?

- Reviewers
- Construction office
- Contractor
- Anyone trying to coordinate with our work
- Arbitration or Lawyers? (Lets hope not)

General Rules

- Use of Shall, Will and Should
- Communicate through the Engineer
- Let the rest of the contract stand on its own
- Do not use phrases such as “furnish and install”, or “provide new” (see Std Specs)
- Don’t use qualitative phrases like “very”, “good workmanship” or “first rate”

General Rules - continued

- Be careful with the term “satisfactory” – to whose satisfaction?
- Don’t pass design work to the construction office or contractor
- Don’t make assumptions
- Make sure there aren’t conflicts within your plans
- Let the contractor know what is really involved in the work

General Rules - continued

- Think like a contractor, could I get a change order out of this? Is this constructible? Can I bid this?
- Could this be interpreted any other way than how I intend it to be?
- Make good use of references

General Rules - continued

- Make sure you've got good information, don't go off someone's "guess"
- Be consistent

Review

- An internal review should be done
- Make sure the job is biddable, constructible, and well conceived
- Make sure it is clear how the work is to be paid for, and exactly what is to be accomplished

Review - continued

- Local Agency and Developer Jobs
 - Should require that they use our material and construction provisions, no reason for them to start from scratch and much harder for our reviewer and inspector
 - As long as the State isn't paying, its OK if they use their own payment provisions

Where do we need to focus?

- There are two ways to put out a bad contract. One is misguided or ill conceived intent and the other is failure to communicate good intent.
- By far the most common cause of problems is poor communication which opens the door for incorrect interpretations. This means we may end up with change orders or we may not end up with the end product we wanted.

Change Orders

- If our design intent is not presented properly or if we fail to properly address the necessary issues in our design a change order may occur
- Change orders are very costly and embarrassing. Work can easily cost 3 times as much when its done as a change order.

Food for thought

- The concrete in the piles or shafts, whichever is constructed first, shall cure for a minimum of three days before construction of the piles or shafts, whichever is constructed last, is constructed.
- Damage to an edge that requires additional saw cutting will be done at no additional cost to the State.
- Conduit shown on drawings is either new conduit or existing conduit to be replaced. No existing conduit that is not to be replaced is shown.

Food for thought-continued

- If necessary, unsatisfactory restoration work may be accomplished by the department and billed to the utility company.
- Contractor shall install 6' X 6' cedar post 10' in the air.
- Where noted in the Contract, a pedestrian in tunnel push-button, of substantially tamper-proof construction shall be furnished and installed
- Upon receiving two or more substantiated continuing complaints, the State will accomplish testing in the bedrooms of the affected residents.

Food for thought-continued

- As defined in these Special Provisions the work shall be completed in a sequence that provides for the maintenance of ferry operations and for the early completion of the remodeled and relocated passenger-only ferry facilities. The required order of the work is as follows:
 - 1. Begin Work
 - 2. Provide access to other contractor(s) for installation of modular buildings, tent structures or both
 - 3. Relocate the passenger-only ferry barge & ramps
 - 4. Complete all work necessary to commence operation of the interim passenger-only facilities in the new location.
 - 5. Complete all work.

Food for thought-continued

- No additional compensation will be made for moderate amounts of extra work required because the existing facilities vary from what is shown so long as the differences are not extreme.
- If these items are stored temporarily until they are ready to be delivered they shall be stored so that they are protected from weather, theft, vandalism, and other contractor activity.

Any questions?